IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Nancy J. Tolan et al.	Art Unit	: 3677
Serial No.	: 10/688,032	Examiner	: Ruth C. Rodriquez
Filed	: October 15, 2003	Conf. No.	: 2173
Title	: LOW PROFILE TOUCH FASTENER		

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REPLY BRIEF

Applicants are responding, pursuant to 37 C.F.R. § 41.41, to the Examiner's answer mailed August 9, 2007, to the amended appeal brief filed April 3, 2007, appealing the Office action mailed July 31, 2006. Applicants respond to the Examiner's Answer as follows:

(1) STATUS OF CLAIMS

Claims 1-3, 5-20, 22-37, and 39-57 are pending.

Claims 1, 19, and 37 are in independent form.

Claims 4, 21, 38, and 54 are cancelled.

Claims 1, 5, 19, 22, 37, and 39 have been previously amended.

Claims 55-57 were previously added.

(2) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A) Claims 1-3, 7-20, 24-37 and 39-54 stand rejected under 35 U.S.C. 103(a) as being obvious over Kingsford et al. (US 6,851,161 B2) in view of Provost et al. (US 4,984,339) and Kennedy (US 6,348,419 B1).

B) Claims 5, 6, 22, 23, 39, 40, and 55-57 stand rejected under 35 U.S.C. 103(a) as being obvious over Kingsford et al. (US 6,851,161 B2) in view of Provost et al. (US 4,984,339), as applied to claims 1, 19, and 37; and further in view of Kennedy (US 6,348,419 B1).

(3) ARGUMENT

Applicants respectfully maintain that all claims are non-obvious over Kingsford in view of Provost, or in view of both Provost and Kennedy, for the reasons stated in their Appeal Brief. Applicants offer the following comments in reply to the Examiner's response to their arguments, in her Answer Brief.

(A) Claims 1-3, 7-20, 24-37 and 39-54 are not obvious under 35 U.S.C. §103(a) over Kingsford in view of Provost.

Applicants have maintained throughout the prosecution of this application that the invention recited in all of their claims features a *combination* of **fastening strength** and **overall thinness** not anticipated or enabled by prior art hook-and-loop fastening systems. It is in the *combination* of these features that Applicants' invention lies, and it is particularly any realization that such a *combination* is more than the sum of its parts that has been critically lacking from the

examination of the claims to date. Instead, the analysis has been mired in a dialogue of details that has failed to grasp the essence of the invention.

Although specific responses to the Examiner's latest comments follow, the most critical issue underlying both of the pending prior art rejections is whether, as Applicant maintains, the combination of cited references does not, even when combined with all of the knowledge of one of ordinary skill in the art of touch fastener design, *enable* the claimed invention. For even though all of the recited claim elements were, as Applicants readily admit, individually known in the art, if the art did not *enable their combination* at the time of the invention, the invention was not obvious.

In short, the art includes THIN fasteners and the art includes STRONG fasteners, but until Applicants' invention, it was not known how to make a thin fastener of the recited strength, or conversely a strong fastener of the recited thinness. The Office is reminded that *fastening* strength (e.g., peel strength, shear strength) is different than material strength, and merely making a fastener out of stronger materials, for example, does not necessarily increase its fastening strength.

The following are responses to specific statements in the Answer Brief.

"Another argument made by the Applicant is that Kingsford fails to disclose the need *for a particularly strong closure..." (p. 8, last paragraph, emphasis added).* This was not Applicants' argument. The Examiner is likely referring to page 4 of the Appeal Brief, where Applicants maintain that "Kingsford neither discloses nor enables the formation of a particularly strong closure ...". This misunderstanding of Applicants' argument relates to the enablement issue mentioned above. It is not the *desirability* of fastening strength that is at issue, it is the ability to obtain such strength.

"[I]t is noted that the features upon which applicant relies (i.e., hooks as part of a low profile closure) are not recited in the rejection claim(s). ... In this case, the claims do not recite that the touch fastener is a low profile closure." (p. 9, first full paragraph). All of the rejected claims recite hooks and a particularly low engaged thickness - what Applicants were referring to in their remarks as being of 'low profile' (i.e., low overall thickness). Applicants have not relied for patentability on features not expressly recited in the claims.

"Regarding Figure 24 [of Provost], although not to scale, illustrates that the height of the loop fastener is meant to be smaller than the height of the hook fastener and therefore this limitation [of overall closure thickness] can be met." (p. 9, second paragraph). It is axiomatic that "patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue." *Go Medical Industries Pty., Ltd. v. Inmed Corp.*, 471 F.3d 1264,1271 (C.A.Fed. 2006); *Hockerson-Halberstadt, Inc. v. Avia Group. Int'l, Inc.*, 222 F.3d 951, 956 (Fed. Cir. 2000). Therefore, even relative sizes of components cannot be determined from such unscaled drawings, and the Examiner is relying on improper findings to support her conclusion regarding what the prior art does indeed disclose. See the continued discussion of Provost's Fig. 24, below.

"The Applicant argues that Provost fails to disclose that the data is for final or initial peel." (page 9, last paragraph). While it is true that Provost does not characterize his peel values, that was not Applicants' argument, nor the point they were trying to get across in the full paragraph on page 5 of the Appeal Brief. Rather, Applicants maintain that the data of Provost's Table III are given as hook comparison data only, for comparing various hooks as mated with a given loop material, and that this data says nothing about the overall thicknesses of the closures that were tested.

"The next argument is that the peel resistance is a function of both the hook and loop and that Provost is silent about the characteristics of the loop fastener being used. This argument fails to persuade because lines 27-58 of column 9 and Figure 24 provides the details for the loop fastener." (page 10, first full paragraph). Applicants' statement about Provosts' silence was regarding how Provost does not provide enough details (e.g., of the loop component) to determine overall engaged thickness. Figure 24 of Provost (reproduced below) illustrates only a schematic set of loops sequentially engaging a hook fastener, to illustrate the process of engagement. There is nothing about the figure that would suggest that the loop and hook heights are of proportional scales, any more than it would provide evidence that the loops are more an order of magnitude longer than the thickness of the loop backing, or that a loop material can be fashioned in four floating sections.

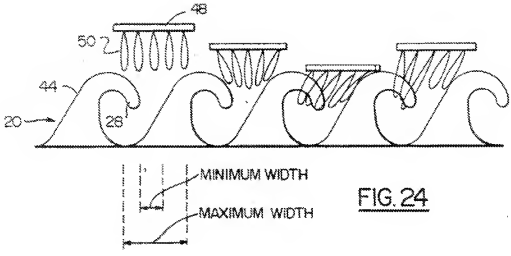

FIG. 24

For the benefit of the Board, here is the accompanying text that the Office cites from Provost as providing the "details for the loop fastener:"

> As will be appreciated, with this construction there is a forcible positioning of the loops as they are brought into contact with the hook element, which assures engagement of the hook by the loops. For example, if one examines FIG. 24 and imagines that the right hand hook of a pair is not present and the loop assembly is pushed downward in contact with the hook assembly it would, at most, provide engagement of one and possibly two loops. In this case there would be no lateral force tending to push even the second loop under the tip of the hook. In fact, the force would be away from the tip rather than towards it.
>
> While in the specific embodiment shown in FIG. 24 a number of loops (5 in this case) are illustrated, greater or lesser numbers can be employed. For example, there may be certain situations where particularly strong loops are required. For example, in those situations where the hook and loop fastener constitutes a means for connecting structural elements together. In this case, perhaps only two loops might pass through minimum width of the wedge. But even in this case the inclined surface o the front hook will tend to force both hooks under the tip of the adjacent rear hook. And even if the front loop does not engage the hook, the back loop will be forced under the hook portion and will be positively engaged thereby.
>
> As will be appreciated, the unique cooperative relationship between the front and back surfaces of the two hooks of a pair provide a novel structure of closely spaced hooks and provides a novel method of

assuring engagement by the loop assembly of the hook and loop fastener.

Thus, the Examiner's reliance on Provost as providing anything of relevance to the discussion of engaged fastener thickness is misplaced.

"The Applicants now argue that the Examiner takes official notice about the bi-directional male fastener component and the woven fabric loop component are well know in the art and the Applicants do not agree with the Examiner's of used [sic] official notices against patentability. The Applicant failed to make this argument during the prosecution." (page 10, second full paragraph). To be clear, Applicants only stated that they "do not concur that finding such elements in the prior art makes reciting them in connection with or in the context of a broader claimed invention obvious." (appeal brief, page 5, last 4 lines). Applicants did not dispute that bi-directional fastener element arrays and woven loop materials are generally known in the art, but that such a finding does not make the invention obvious.

"The Applicant argues that the combination of the limitations of claim 1 with the limitations of claim 2 do not yield the limitations of claim 19 since claim 19 does not require the initial peel required for claim 1. The Examiner fails to be persuaded by this argument because claim 19 uses the open ended transitional phrase "comprising" and therefore other elements can be present in the reference..." (page 10, last paragraph). Applicants understand that what the Office is really trying to say is that the same combination of references applied to claim 2 can be applied to claim 19, which is broader than claim 2, and concur that if claim 2 is found obvious claim 19 should not be found any less so. The same can be said for claim 37 with respect to claim 3.

(B) Claims 5, 6, 22, 23, 39, 40, and 55-57 are not obvious under 35 U.S.C. §103(a) over Kingsford in view of Provost, and further in view of Kennedy.

The Examiner contends that *any* structure that can be used to reinforce the base of the hook component can *inherently* meet the claim limitation of a hook component having a stitch hole tear strength of at least 2.0 pounds or at least 5.0 pounds. However, as previously stated, in relying on inherency, the Office has the burden to show that the inherency *necessarily* flows from the disclosure of the reference used to reject the claims. It is not enough to show that a certain result *may* occur or is *capable* of occurring. Rather, the Office has the burden of showing that the result is *necessarily* occurring. *See* MPEP 2112; In re Rijckaert, 9 F.3d 1531; and Ex parte Levy, 17 USPQ2d 1464. As a result, the Office has failed to identify any particular teaching or aspect of Kennedy that would motivate a person of ordinary skill to provide a proposed Kingsford-Provost combination product with a particular stitch hole tear strength or to specifically reinforce a fastener product in such a way that a particular stitch hole tear strength is obtained.

In response to the Examiner's new objection that "*the claims do not define what is the stitch hole tear strength, how it is determined and what structure is provided to accomplish the cited values*" (page 11, last paragraph), Applicants note that this objection (which appears to implicate 35 U.S.C. §112) was not raised previously in the rejection of the claims, and offer the following response:

(i) *What is stitch hole tear strength and how is it determined?* Throughout the first 21 pages of their Specification, Applicants refer to Stitch Hole Tear Strength as being defined with respect to the test method given on page 22, beginning at line 11. For the convenience of the Board, the relevant text from page 22 is as follows:

> "Stitch Hole Tear Strength" is measured according to the following test method, on un-engaged fastener components. A line of holes is made along the center of width of each eight-inch by one-inch test sample, with a 0.044 inch, medium ball needle, at a stitch rate of 11 to 13 stitch holes per inch, without thread, starting around three inches from a first end of the sample. The sample is then conditioned for at least 20 hours at 69.8 to 77 degrees Fahrenheit and 45 to 55 percent relative humidity. A straight line is cut from the first end of the sample to the nearest hole, forming two separate tabs. The sample is then held by the tabs and torn by moving the

> two tabs apart by motion within the plane of the sample and perpendicular to the line of holes, at a separation speed of 11.5 to 12.5 inches per minute, until the sample exhibits a total tear length of about five inches. Disregarding data from the first and last 12-second period of the loading, the five highest load peaks are averaged and reported to the nearest 0.1 pound increment.

Applicants respectfully submit that they have provided sufficient definition to the term and have explained precisely how to determine its value.

(ii) *What structure is provided to accomplish the cited values?* Applicants respectfully submit that it is not necessary that a precise list of dimensions, materials and other attributes be recited in a claim to make the claim sufficiently definite for patentability. Nor would it be possible to be so exhausting in such a listing as to reasonably encompass the subject matter that Applicants are entitled to claim. What is necessary is that the claim language be such that, when viewed in light of the specification, would be clear and understood to one of ordinary skill in the relevant art, and that the specification enable its practice. Applicants submit that the claims are definite and enabled with respect to all recited features, including Stitch Hole Tear Strength.

CONCLUSION

Applicants respectfully submit that all claims remaining under appeal are patentable over the cited art, for at least the reasons outlined above, and the reasons stated in the Appeal Brief. Applicants submit that the final rejection should therefore be reversed.

It is not believed that any other charges are due, but please apply any such charges to deposit account 06-1050, referencing Attorney Docket No. 05918-322001.

Respectfully submitted,

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